

Review of Independent Regulation in Downstream Hydrocarbon Sector in India

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CERTIFICATE OF ORIGINAL AUTHORSHIP

I, Sudha Mahalingam, declare that this thesis, is submitted in fulfilment of the requirements for the award of Doctor of Philosophy, in the Faculty of Engineering and Technology, at the University of Technology Sydney. This thesis is wholly my own work unless otherwise referenced or acknowledged. In addition, I certify that all information sources and literature used are indicated in the thesis. This document has not been submitted for qualifications at any other academic institution. This research is supported by the Australian Government Research Training Program.

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Abstract

Prompted by the widespread and persistent failure of developing economies to provide their citizens with basic utilities like water and energy, decades after these industries were restructured and reformed, this research sought to examine the role of independent regulatory institutions, the cornerstone of utility reforms, to understand if these are indeed the appropriate institutions for the task of expanding utility provision to hitherto unconnected populations in developing countries. The case study for this enquiry was provided by PNGRB, India's independent hydrocarbon regulatory institution set up with an express mandate to incentivise rapid rollout of pipeline and local distribution networks countrywide, to take cooking gas to India's 240 million domestic households. Analysis suggests that the regulator has not been able to incentivise any extension of infrastructure in the twelve years of its existence, notwithstanding the fact that it broadly conformed to canons of good governance. A more penetrating look also reveals that the efforts by the Indian government aimed at distancing the state from utility provision, depoliticising governance through installation of PNGRB, and withdrawal of state funding for building infrastructure, have created inherent contradictions and complexities. PNGRB is singularly ill-equipped to deal with these contradictions, designed as it is, on a generic one-size-fits-all model. With government withdrawing from utility provision and markets reluctant to build the networks, utilities fall between the two stools. This thesis concludes, therefore, that the regulatory model of utility governance is both irrelevant and inappropriate for developing economies like India, with incipient and immature markets and that the state has an important role to play in planning and funding utility infrastructure at least until the market matures to a level where independent regulation can contribute to 'nudging' it to desirable ends. Although this study focused on natural gas utilities in India, it has valuable lessons for other network utilities across developing countries where markets have been introduced prematurely and selectively even as sizeable chunks of the population make do without basic utilities.

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Abbreviations

APM	Administered Price Mechanism
ASG	Additional Solicitor General
CGD -	City Gas Distribution
CIS	Confederation of Independent States
CNG	Compressed Natural Gas
CRE	Commission de Regulation de l'Energie
EoI	Expression of Interest
EU	European Union
EWPL	East West Pipeline
FERC	Federal Energy Regulatory Commission
FPC	Federal Power Commission
GAIL	Gas Authority of India Limited
GdF	Gas de France
GDP	Gross Domestic Product
GoI	Government of India
GSPL	Gujarat State Petronet Limited
HVJ	Hazira Vijaipur Jagdishpur
IGL	Indraprastha Gas Limited

IMF	International Monetary Fund
IPP	Independent Power Producers
ISO	Independent Systems Operator
JV	Joint Venture
LDC	Local Distribution Company
LNG	Liquefied Natural Gas
LPG	Liquid Petroleum Gas
MMSCMD	Million Metric Standard Cubic Meters a Day
MMTPA	Million Metric Tonne Per Annum
MoPNG	Ministry of Petroleum and Natural Gas
MOU	Memorandum of Understanding
NELP	New Exploration Licensing Policy
NOC	National Oil Company
OECD	Organisation for Economic Cooperation and Development
OFT	Office of Free Trade
OIL	Oil India Limited
ONGC	Oil and Natural Gas Regulatory Commission
PNG -	Piped Natural Gas
PNGRB -	Petroleum and Natural Gas Regulatory Board (of India)
RGTEL	Reliance Gas Transmission Infrastructure Limited
RIA	Regulatory Impact Assessment
RIL	Reliance Industries limited
TCE	Transaction Cost Economics

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